

Listing of Claims

This listing of claims replaces all prior versions and listings of claims in the application:

1. (Currently Amended) A machine-implemented method, comprising:

receiving, at a computer system, from a user interacting with a user interface of a data processor, a primary term representing a new first concept to be created in an existing machine-readable network of interrelated concepts, wherein a concept comprises a normalized semantic representation that is defined in the existing machine-readable network of interrelated concepts by a group of synonyms;

receiving, from the user interacting with the user interface, at least one a first related term and a second related term associated with the primary term and representing the new first concept, the first and the second related terms being synonyms;

receiving, from the user interacting with the user interface, at least one relationship between the new first concept and a second concept;

receiving, from the user interacting with the user interface, a relationship type characterizing the at least one relationship;

receiving, from the user interacting with the user interface, a strength value characterizing the at least one relationship;

representing the association between the primary term and the at least one related term, the at least one relationship, and the relationship type to the user on the user interface;

receiving a user request, from the user interacting with the user interface, to add the new first concept to the machine-readable network of interrelated concepts; and

in response to the user request, a semantic engine creating the new first concept in the existing machine-readable network of interrelated concepts to expand the existing network of interrelated concepts by adding the new first concept to the existing network of interrelated concepts, wherein creating the new first concept comprises adding the primary term, the first and the second related term terms, the relationship between the first concept and the second concept, the relationship type, and the strength value to the existing machine-readable network of interrelated concepts to represent the new first concept and the relationship between the first concept and the second concept, wherein the first and the second related terms define the first new concept as members of the group of synonyms that defines the first new concept.

2. (Previously Presented) The method of claim 1, wherein representing the association comprises displaying a concept view.

3. (Previously Presented) The method of claim 1, further comprising receiving information characterizing a part of speech of the new first concept.

4. (Previously Presented) The method of claim 1, wherein the relationship comprises a hierarchical relationship or a lateral bond that indicates a proximity of the new first concept to the second concept in semantic space.

5. (Previously Presented) The method of claim 1, wherein the relationship type is selected from the group consisting of: kind of, has kind, part of, has part, member of, has member, substance of, has substance, product of, or has product.

6. (Previously Presented) The method of claim 1, further comprising receiving information characterizing a frequency of the primary term.

7. (Previously Presented) The method of claim 1, further comprising receiving information characterizing a likelihood that the primary term and the related terms imply the new first concept.

8. (Previously Presented) The method of claim 1, further comprising receiving information characterizing a breadth of the new first concept.

9. (Currently Amended) The method of claim 1, further comprising receiving information indicating that the new first concept is offensive.

10. (Currently Amended) The method of claim 1, further comprising receiving user data further describing the new first concept.

11. (Currently Amended) The method of claim 1, further comprising receiving context information.

12. (Currently Amended) A machine-implemented method, comprising:
receiving, from a user interacting with a user interface of a client processor, a request to edit a first concept in an existing machine-readable network of interrelated concepts, wherein a concept comprises a normalized semantic representation and is ~~expressed by a collection of terms~~ defined the existing machine-readable network of interrelated concepts by a group of synonyms;

representing the first concept on a display of the user interface for the user, including displaying a first collection of ~~terms~~ synonyms that ~~express~~ define the first concept and a description of one or more existing relationships between the first concept and other concepts in the existing machine-readable network of interrelated concepts;

receiving, from the user interacting with the user interface, at least one new relationship between the first concept and a second concept;

receiving, from the user interacting with the user interface, a relationship type characterizing a type of the at least one new relationship;

receiving, from the user interacting with the user interface, a strength value characterizing a strength of the at least one new relationship; and

a semantic engine updating the machine-readable network of interrelated concepts to reflect the at least one new relationship, the relationship type, and the strength value representing the updated first concept on the display for the user, ~~wherein the display includes a description of the at least one new relationship.~~

13. (Previously Presented) The method of claim 12, further comprising receiving a new strength value for one of the existing relationships between the first concept and a third concept.

14. (Previously Presented) The method of claim 12, further comprising receiving a new relationship type for one of the existing relationships between the first concept and a third concept.

15. (Previously Presented) The method of claim 12, wherein the new relationship comprises a hierarchical relationship or a lateral bond that indicates a proximity of the first concept to the second concept in semantic space.

16. (Previously Presented) The method of claim 12, wherein the relationship type is selected from the group consisting of: kind of, has kind, part of, has part, member of, has member, substance of, has substance, product of, or has product.

17. (Previously Presented) The method of claim 12, further comprising receiving information characterizing a new frequency of the primary term.

18. (Previously Presented) The method of claim 12, further comprising receiving information characterizing a new likelihood that a primary term and related terms imply the first concept.

19. (Previously Presented) The method of claim 12, further comprising receiving information characterizing a new breadth of the first concept.

20. (Currently Amended) One or more computer-readable storage devices comprising program code tangibly embodied in machine-readable format and operable to cause one or more machines to perform operations, the operations comprising:

receiving, from a user interacting with a user interface, a primary term representing a new first concept to be created in an existing machine-readable network of interrelated concepts, wherein a concept comprises a normalized semantic representation that is defined in the existing machine-readable network of interrelated concepts by a group of synonyms;

receiving, from the user interacting with the user interface, at least one a first related term and a second related term associated with the primary term and representing the new first concept, the first and the second related terms being synonyms;

receiving, from the user interacting with the user interface, at least one relationship between the new first concept and a second concept;

receiving, from the user interacting with the user interface, a relationship type characterizing the at least one relationship;

receiving, from the user interacting with the user interface, a strength value characterizing the at least one relationship;

representing the association between the primary term and the at least one related term, the at least one relationship, and the relationship type to the user on the user interface;

receiving, from the user interacting with the user interface, a user request to add the new first concept to the machine-readable network of interrelated concepts; and

in response to the user request, creating the new first concept in the existing machine-readable network of interrelated concepts to expand the existing network of interrelated concepts by adding the new first concept to the existing network of interrelated concepts, wherein creating the new first concept comprises adding the primary term, the first and the second related ~~term~~ terms, the relationship between the first concept and the second concept, the relationship type, and the strength value to the existing machine-readable network of interrelated concepts to represent the new first concept and the relationship between the first concept and the second concept, wherein the first and the second related terms define the first new concept as members of the group of synonyms that defines the first new concept.

21. (Previously Presented) The computer-readable storage devices of claim 20, wherein representing the association comprises displaying a concept view.

22. (Previously Presented) The computer-readable storage devices of claim 20, wherein the operations further comprise receiving information characterizing a part of speech of the new first concept.

23. (Previously Presented) The computer-readable storage devices of claim 20, wherein the relationship comprises a hierarchical relationship or a lateral bond that indicates a proximity of the new first concept to the second concept in semantic space.

24. (Previously Presented) The computer-readable storage devices of claim 20, wherein the relationship type is selected from the group consisting of: kind of, has kind, part of, has part, member of, has member, substance of, has substance, product of, or has product.

25. (Previously Presented) The computer-readable storage devices of claim 20, wherein the operations further comprise receiving information characterizing a frequency of the primary term.

26. (Previously Presented) The computer-readable storage devices of claim 20, wherein the operations further comprise receiving information characterizing a likelihood that the primary term and the related terms imply the new first concept.

27. (Previously Presented) The computer-readable storage devices of claim 20, wherein the operations further comprise receiving information characterizing a breadth of the new first concept.

28. (Previously Presented) The computer-readable storage devices of claim 20, wherein the operations further comprise receiving information indicating that the new first concept is offensive.

29. (Previously Presented) The computer-readable storage devices of claim 20, wherein the operations further comprise receiving user data further describing the new first concept.

30. (Previously Presented) The computer-readable storage devices of claim 20, wherein the operations further comprise receiving refinement information.

31. (Currently Amended) One or more computer-readable storage devices comprising program code tangibly embodied in machine-readable format and operable to cause one or more machines to perform operations, the operations comprising:

receiving, from a user interacting with a user interface of a client processor, a request to edit a first concept in an existing machine-readable network of interrelated concepts, wherein a concept comprises a normalized semantic representation and is ~~expressed by a collection of terms~~ defined in the existing machine-readable network of interrelated concepts by a group of synonyms;

representing the first concept on a display of the user interface for the user, including displaying a first collection of ~~terms~~ synonyms that ~~express~~ define the first concept and a description of one or more existing relationships between the first concept and other concepts in the existing machine-readable network of interrelated concepts;

receiving, from the user interacting with the user interface, at least one new relationship between the first concept and a second concept;

receiving, from the user interacting with the user interface, a relationship type characterizing a type of the at least one new relationship;

receiving, from the user interacting with the user interface, a strength value characterizing a strength of the at least one new relationship; and

a semantic engine updating the machine-readable network of interrelated concepts to reflect the at least one new relationship, the relationship type, and the strength value representing the updated first concept on the display for the user, ~~wherein the display includes a description of the at least one new relationship.~~

32. (Previously Presented) The computer-readable storage devices of claim 31, wherein the operations further comprise receiving a new strength value for one of the existing relationships between the first concept and a third concept.

33. (Previously Presented) The computer-readable storage devices of claim 31, wherein the operations further comprise receiving a new relationship type for one of the existing relationships between the first concept and a third concept.

34. (Previously Presented) The computer-readable storage devices of claim 31, wherein the new relationship comprises a hierarchical relationship or a lateral bond that indicates a proximity of the first concept to the second concept in semantic space.

35. (Previously Presented) The computer-readable storage devices of claim 31, wherein the relationship type is selected from the group consisting of: kind of, has kind, part of, has part, member of, has member, substance of, has substance, product of, or has product.

36. (Previously Presented) The computer-readable storage devices of claim 31, wherein the operations further comprise receiving information characterizing a new frequency of the primary term.

37. (Previously Presented) The computer-readable storage devices of claim 31, wherein the operations further comprise receiving information characterizing a new likelihood that a primary term and related terms imply the first concept.

38. (Previously Presented) The computer-readable storage devices of claim 31, wherein the operations further comprise receiving information characterizing a new breadth of the first concept.

39. (Canceled)

40. (Canceled)

41. (Currently Amended) A user display comprising:

an identifier of a first concept in an existing machine-readable ontology of concepts, wherein a concept comprises a normalized semantic representation ~~represented~~ that is defined in the existing machine-readable network of interrelated concepts by a collection of ~~terms~~ synonyms;

a list of two or more ~~terms~~ synonyms that represent the first concept;

a list of two or more parent/child relationships between the first concept and other concepts in the ontology;

a list of two or more child/parent relationships between the first concept and other concepts in the ontology; and

a list of two or more lateral relationships between the first concept and other concepts in the ontology.

42. (Previously Presented) The graphical display of claim 41, wherein at least one of the first description, the second description, and the third description includes information describing that one or more of the first relationship, the second relationship, and the third relationship is a “kind of” relationship, a “has kind” relationship, a “part of” relationship, a “has part” relationship, a “member of” relationship, a “has member” relationship, a “substance of” relationship, a “has substance” relationship, a “product of” relationship, or a “has product” relationship.

43. (Previously Presented) The method of claim 1, wherein creating the new first concept in the existing machine-readable network of interrelated concepts comprises storing the new first concept in a concept database stored at a data storage device.

44. (Previously Presented) The method of claim 12, wherein updating the machine-readable network of interrelated concepts comprises updating a concept database stored at a data storage device.

45. (Previously Presented) The computer-readable storage devices of claim 20, wherein creating the new first concept in the existing machine-readable network of interrelated concepts comprises storing the new first concept in a concept database stored at a data storage device.

46. (Previously Presented) The computer-readable storage devices of claim 31, wherein updating the machine-readable network of interrelated concepts comprises updating a concept database stored at a data storage device.